

IN THE CLAIMS:

9. (previously amended) A system for analyzing the transfer of data across communication channels utilizing different protocols comprising:
a data processor; and
a plurality of communication channel interfaces coupled to the data processor;
wherein the data processor is configured
to receive data formatted according to a first protocol via a first one of the interfaces,
to identify the data formatted according to the first protocol,
to receive data formatted according to a second protocol via a second one of the interfaces,
to identify the data formatted according to the second protocol
to verify that the data formatted according to the second protocol corresponds to the data formatted according to the first protocol, and
to verify that the data formatted according to the second protocol corresponds to the data formatted according to the first protocol by comparing a data payload of the data formatted according to the second protocol and a data payload of the data formatted according to the first protocol to determine whether the data payload of the data formatted according to the second protocol is identical to the data payload of the data formatted according to the first protocol.

27. (currently amended) A method comprising:
identifying a data payload of data formatted according to a first protocol;
converting the data payload to a second protocol;
identifying a data payload of the data formatted according to the second protocol;
verifying the integrity of the data payload of the data formatted according to the second protocol;
converting the data payload of the data formatted according to the second protocol to a third protocol;
identifying a data payload of the data formatted according to the third protocol; and
verifying the integrity of the data payload of the data formatted according to the third protocol.

29. (previously amended) A method comprising:
identifying a data payload of data formatted according to a first protocol;
converting the data payload to a second protocol;
identifying a data payload of the data formatted according to the second protocol; and
verifying the integrity of the data payload of the data formatted according to the second protocol;
wherein converting the data payload to the second protocol comprises translating the data payload from the first protocol to the second protocol.

30. (previously amended) A method comprising:
identifying a data payload of data formatted according to a first protocol;
converting the data payload to a second protocol;
identifying a data payload of the data formatted according to the second protocol; and
verifying the integrity of the data payload of the data formatted according to the second protocol;
wherein converting the data payload to the second protocol comprises encapsulating the data payload formatted according to the first protocol in a format according to the second protocol.

31. (previously amended) A method comprising:
accepting data formatted according to a first protocol,
identifying a data payload of data formatted according to the first protocol,
forwarding the data formatted according to the first protocol to a first device which is configured to convert the data payload of the data formatted according to the first protocol from the first protocol to the second protocol,
converting the data payload of the data formatted according to the first protocol to a second protocol,
identifying the data payload of the data formatted according to the second protocol, and
verifying the integrity of the data formatted according to the second protocol.

32. (previously amended) The method of claim 31 further comprising accepting data formatted according to the second protocol from the first device, identifying the data payload of

the data formatted according to the second protocol, and verifying that the data payload of the data formatted according to the second protocol is identical to the data payload of the data formatted according to the first protocol.

33. (previously amended) The method of claim 32 further comprising forwarding the data formatted according to the second protocol to a second device which is configured to convert the data payload of the data formatted according to the second protocol from a second protocol to a third protocol.

34. (previously amended) The method of claim 33 further comprising accepting data formatted according to the third protocol from the second device, identifying the data payload of the data formatted according to the third protocol, and verifying that the data payload of the data formatted according to the third protocol is identical to the data payload of the data formatted according to the second protocol.

35. The method of claim 34 further comprising forwarding the data formatted according to the third protocol to a third device.

36. (previously added) The system of claim 9 wherein the data processor is further configured to present to a user an indication of whether the data formatted according to the second protocol corresponds to the data formatted according to the first protocol.

37. (previously added) The system of claim 9 wherein the data processor comprises a personal computer (PC).

38. (previously added) The system of claim 37 wherein the PC comprises a peripheral component interconnect (PCI) bus, and wherein the plurality of interfaces comprise a plurality of interface cards which are coupled to the PCI bus.

39. (previously added) The system of claim 9 wherein the data processor is further configured to receive data formatted according to a third protocol via one of the interfaces, to

identify the data formatted according to the third protocol, and to verify that the data formatted according to the third protocol corresponds to the data formatted according to the first or second protocols.

40. (previously added) The system of claim 9 wherein the data processor is configured to emulate a response to the data formatted according to the second protocol.

41. (previously added) The system of claim 40 wherein the response comprises an indication of an error.

42. (previously added) The system of claim 9 wherein the data processor is configured to verify that the data formatted according to the second protocol corresponds to the data formatted according to the first protocol by comparing a data payload of the data formatted according to the second protocol and a data payload of the data formatted according to the first protocol to determine whether the data payloads are identical.

43. (previously added) The system of claim 9 wherein the data processor is configured to decode at least a portion of the data formatted according to the first or second protocols, to interpret the portion of the data, and to display the interpretation to a user.

44. (previously added) The system of claim 9 wherein the data processor is configured to verify that the data formatted according to the second protocol corresponds to the data formatted according to the first protocol automatically.

45. (previously added) The system of claim 9 further comprising a data storage unit, wherein the system is configured to store one or more of the analyzed data packets.

46. (previously added) The system of claim 45 wherein the data processor is configured to perform one or more analyses on the stored data packets.

47. (previously added) The method of claim 31 further comprising: converting the data payload to a third protocol; identifying a data payload of the data formatted according to the third protocol; and verifying the integrity of the data payload of the data formatted according to the third protocol.

48. (previously added) The method of claim 31 wherein converting the data payload to the second protocol comprises translating the data payload from the first protocol to the second protocol.

49. (previously added) The method of claim 31 wherein converting the data payload to the second protocol comprises encapsulating the data payload formatted according to the first protocol in a format according to the second protocol.

50. (previously added) The method of claim 32 further comprising: converting the data payload to a third protocol; identifying a data payload of the data formatted according to the third protocol; and verifying the integrity of the data payload of the data formatted according to the third protocol.

51. (previously added) The method of claim 32 wherein converting the data payload to the second protocol comprises translating the data payload from the first protocol to the second protocol.

52. (previously added) The method of claim 32 wherein converting the data payload to the second protocol comprises encapsulating the data payload formatted according to the first protocol in a format according to the second protocol.

53. (previously added) The method of claim 33 further comprising: converting the data payload to a third protocol; identifying a data payload of the data formatted according to the third protocol; and verifying the integrity of the data payload of the data formatted according to the third protocol.

54. (previously added) The method of claim 33 wherein converting the data payload to the second protocol comprises translating the data payload from the first protocol to the second protocol.

55. (previously added) The method of claim 33 wherein converting the data payload to the second protocol comprises encapsulating the data payload formatted according to the first protocol in a format according to the second protocol.

56. (previously added) The method of claim 34 further comprising: converting the data payload to a third protocol; identifying a data payload of the data formatted according to the third protocol; and verifying the integrity of the data payload of the data formatted according to the third protocol.

57. (previously added) The method of claim 34 wherein converting the data payload to the second protocol comprises translating the data payload from the first protocol to the second protocol.

58. (previously added) The method of claim 34 wherein converting the data payload to the second protocol comprises encapsulating the data payload formatted according to the first protocol in a format according to the second protocol.

59. (previously added) The method of claim 35 further comprising: converting the data payload to a third protocol; identifying a data payload of the data formatted according to the third protocol; and verifying the integrity of the data payload of the data formatted according to the third protocol.

60. (previously added) The method of claim 35 wherein converting the data payload to the second protocol comprises translating the data payload from the first protocol to the second protocol.

61. (previously added) The method of claim 35 wherein converting the data payload to the second protocol comprises encapsulating the data payload formatted according to the first protocol in a format according to the second protocol.
